

LNPT[™] ELCRIN[™] CRX1314BT

DESCRIPTION

LNP ELCRIN CRX1314BT is an amorphous PC copolymer resin that incorporates renewable feedstock through ISCC+ mass-balance certification to lower carbon footprint without compromising product performance. Features excellent chemical resistance in combination with excellent impact strength and good optical properties (thin wall transparency). This medium flow resin features transparency to translucency based on thickness and low temperature ductility (-30C). It is intended for a wide variety of transparent and translucent healthcare applications that require improved chemical resistance and ductility.

GENERAL INFORMATION	
Features	Chemical Resistance, Thin Wall, Amorphous, IR Transparent, Sustainable (bio-based offerings), Transparent/Translucent, High temperature resistance, Impact resistant, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Hygiene and Healthcare	Personal and Professional Hygiene, Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing

TYPICAL PROPERTY VALUES

Revision 20240503

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Modulus, 50 mm/min	2150	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	124	%	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	6.5	%	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	65	MPa	ASTM D638
Tensile Stress, yld, Type I, 50 mm/min	59	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2250	MPa	ASTM D790
Flexural Stress, yld, 1.3 mm/min, 50 mm span	98	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	910	J/m	ASTM D256
Izod Impact, notched, -30°C	700	J/m	ASTM D256
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	129	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	142	°C	ASTM D648
Vicat Softening Temp, Rate B/120	148	°C	ISO 306
PHYSICAL ⁽¹⁾			
Density	1.19	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62
Water Absorption, (23°C/24hrs)	0.2	%	ISO 62-1
Melt Volume Rate, MVR at 300°C/2.16 kg	10	cm ³ /10 min	ASTM D1238
Specific Gravity	1.19	-	ASTM D792
Mold Shrinkage, flow ⁽²⁾	0.5 – 0.9	%	SABIC method

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Melt Flow Rate, 300°C/2.16 kgf	11	g/10 min	ASTM D1238
OPTICAL			
Light Transmission, 1.0 mm	89	%	ASTM D1003
Haze, 1.0 mm	2	%	ASTM D1003
FLAME CHARACTERISTICS ⁽³⁾			
UL Recognized, 94HB Flame Class Rating	≥0.75	mm	UL 94
UL Yellow Card Link	E121562-104612026	-	-
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	12	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	290 – 340	°C	
Rear - Zone 1 Temperature	270 – 320	°C	
Middle - Zone 2 Temperature	280 – 330	°C	
Front - Zone 3 Temperature	290 – 340	°C	
Nozzle Temperature	290 – 340	°C	
Mold Temperature	80 – 105	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	50 – 100	rpm	
Shot to Cylinder Size	40 – 80	%	
Vent Depth	0.025 – 0.076	mm	

- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
- (3) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.
- (4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.